



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/056,766	01/25/2002	Teresa Mah	MS#183302.1 (4966)	4609

321 7590 10/08/2004

SENNIGER POWERS LEAVITT AND ROEDEL
ONE METROPOLITAN SQUARE
16TH FLOOR
ST LOUIS, MO 63102

EXAMINER

HIRL, JOSEPH P

ART UNIT	PAPER NUMBER
----------	--------------

2121

DATE MAILED: 10/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/056,766	Applicant(s) MAH ET AL.	
	Examiner Joseph P. Hirl	Art Unit 2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on January 25, 2002 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2121

DETAILED ACTION

1. This Office Action is in response to an AMENDMENT entered July 21, 2004 for the patent application 10/056,766 filed on January 25, 2002.
2. The First Office Action of April 28, 2004 is fully incorporated into this Final Office Action by reference.

Status of Claims

3. Claims 1-31 are amended. Claims 1-31 are pending.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 1-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Copperman et al (U.S. Pub 2003/0115191, referred to as **Copperman et al**).

Art Unit: 2121

Claim 1

Copperman anticipates storing each ordered path within the CS data in one of up to N tree structures, each of said tree structures having a root node P_i corresponding to one of pages P_1 to P_N and having successive child nodes corresponding to the successive pages after P_i of P_{i+1} to P_{i+X} , said X representing a depth criterion (**Copperman**, ps 0037, 0042; Examiner's Note (EN): each tree will have a root node with children following, the depth depending on the number of nodes; to one of ordinary skill in the art pages are blocks of memory); and extracting a list of stored paths from each of the tree structures from the root node P_i to each end node to represent a set of funnels corresponding to the CS data (**Copperman**, p 0042; EN: a funnel is an ordered path).

Claims 2, 22

Copperman anticipates storing comprises incrementing a counter associated with each node in each ordered path as the ordered path is stored, and further comprising analyzing each stored path in each tree structure using the counters to identify the stored paths that satisfy one or more selected input criteria (**Copperman**, ps 0037, 0042; EN: incrementing a counter associated with a node is synonymous with content mapping to concept nodes).

Claims 3, 25

Copperman anticipates the input criteria is selected from a group consisting of a width criterion, a starting page criterion for the child nodes, and an end page criterion, said width criterion representing a retention rate, said starting page criterion specifying a

Art Unit: 2121

set of pages in CS data from which P_i is selected, and said end page criterion specifying a set of pages in CS data that can serve as end nodes in of the each tree structures (**Copperman**, ps 0037, 0042; EN: the width criterion is not evaluated because of the indefinite character that it represents (see above); Copperman has starting and ending nodes which represent pages or memory blocks).

Claim 4

Copperman anticipates retention rate is a function of a frequency relative to one of the following: the root node or the previous child node (**Copperman**, p 0037 EN: frequency is not evaluated because of the indefinite character that it represents (see above)).

Claim 5

Copperman anticipates retention rate is a function of an absolute frequency (**Copperman**, p 0037 EN: rate is typically the first derivative of a function and frequency is defined in cycles per unit of time; frequency conveys the concept of oscillation and rate conveys trend; to equate the two, raises the issue of indefiniteness).

Claim 6

Copperman anticipates the width criterion specifies one or more of the following: a minimum width or a maximum width (**Copperman**, ps 0036, 0037; EN: width criteria is considered indefinite since it can be anything).

Art Unit: 2121

Claim 7

Copperman anticipates depth criterion specifies a maximum depth (**Copperman**, ps 0036, 0037; EN: depth is merely the number of nodes that one experiences and is generic).

Claim 8

Copperman anticipates wherein the depth criterion represents a desired number of pages in each stored path (**Copperman**, ps 0036, 0037; EN: depth is merely the number of nodes that one experiences and the metric is generic).

Claim 9

Copperman anticipates wherein P_i corresponds to one of P_1 to P_N specified as starting page criterion (**Copperman**, ps 0036, 0037; EN: one starts from the beginning (P_i) as one starts from the beginning of an initiation).

Claims 10, 16, 20, 21

Copperman anticipates the stored path is a subpath (**Copperman**, ps 0036, 0037; EN: it is axiomatic that a stored path would be a subpath of something to include itself such as a recursed path).

Claim 11

Copperman anticipates storing comprises scanning the CS data one time (**Copperman**, ps 0037, 0038).

Claim 12

Copperman anticipates automatically generating a report of the extracted list of stored paths (**Copperman**, p 0035).

Art Unit: 2121

Claims 13, 18, 23, 31

Copperman anticipates one or more computer readable media have computer-executable instructions for performing the computer-implemented method recited in claim 1 (**Copperman**, ps 0003, 0033).

Claim 14

Copperman anticipates storing in one or more tree structures, one or more paths within the CS data that satisfy a first input criterion (**Copperman**, p 0038); and analyzing each of the tree structures to identify any of the paths that satisfy a second input criterion, said second input criterion representing a width criterion (**Copperman**, p 0037; EN: distance (further away) is synonymous to width).

Claim 15

Copperman anticipates the first input criterion comprises one or more of the following: a depth criterion specifying a maximum number of pages in each stored path and a starting page criterion specifying a set of pages in the CS data that can serve as a root node in one of the tree structures (**Copperman**, p 0037; EN: pieces of content appropriately mapped to concept nodes anticipates maximum number of pages (memory blocks) in a stored path or a starting page (memory block) criterion)

Claim 17

Copperman anticipates creating a tree structure for each starting page of the one or more paths (**Copperman**, p 0037); and creating one or more branches in each of the tree structures for each path that starts with one of the starting pages (**Copperman**, Fig 2);

Art Unit: 2121

Claim 19

Copperman anticipates creating a tree structure for storing the ordered path for each of the clickstreams, each tree structure having a root node corresponding to the first page of the clickstream and having a child node corresponding to each of the successive pages in the clickstream (**Copperman**, ps 0037, 0042); for each input starting page, searching each tree structure to identify any stored path that starts at a node associated with the input starting page and satisfies an input depth requirement, said input depth requirement representing a desired number of pages in each path (**Copperman**, ps 0037, 0038, 0041); storing each identified path in a temporary tree (**Copperman**, ps 0037, 0042); and recursing through the temporary tree to identify any path that satisfies an input width requirement, said input width requirement representing a retention rate (**Copperman**, ps 0037, 0038, 0041; EN: recursing takes place through a tree (path) using content gleaned from the dialog session which will satisfy an input requirement).

Claim 24

Copperman anticipates storing each ordered path within the CS data in one or more tree structures up to N tree structures, each of said tree structures having a root node P_i corresponding to one of pages P_i to P_N and having successive child nodes corresponding to the successive pages after P_i of P_{i+1} to P_{i+X} , said X representing a depth criterion (**Copperman**, ps 0037, 0042; Examiner's Note (EN): each tree will have a root node with children following, the depth depending on the number of nodes); a support component for incrementing a counter associated with each node in each

Art Unit: 2121

ordered path as the ordered path is stored (**Copperman**, ps 0037, 0042; EN: incrementing a counter associated with a node is synonymous with content mapping to concept nodes); a funnel component for extracting a list of stored paths from each of the tree structures from the root node P_i to each end node to represent a set of funnels corresponding to the CS data(**Copperman**, p 0042; EN: a funnel is an ordered path); and a criteria component for analyzing each stored path in each of the tree structures using the counters to identify the stored paths that satisfy one or more input criteria (**Copperman**, ps 0037; EN: input criteria is the root node that defines a directed acyclical graph; computer system is used to count the memory block and thus record the stored path) .

Claim 26

Copperman anticipates a first field including data identifying a page name presenting a name of the viewed web page associated with the particular node (**Copperman**, p 0275); and a second field storing a support value representing a frequency of appearance for a particular path including the viewed web page identified in the first field, said particular path starting with the root node of the tree structure and including the particular node (**Copperman**, p 0275; EN: frequency of co-occurrence represents a frequency of appearance).

Claim 27

Copperman anticipates the data structure is created for each distinct web page in the input clickstreams as the clickstream is scanned (**Copperman**, p 0042).

Art Unit: 2121

Claim 28

Copperman anticipates reading through CS data from P_1 to P_X , wherein X is less than or equal to N and represents an input depth (**Copperman**, p 0042; EN: this is simply observing a set of nodes; X is not defined for values greater than N); creating a first tree with a root node associated with page P_1 , and with successive child nodes associated with pages P_2 to P_X , wherein P_X represents a child node with parent P_{X-1} (**Copperman**, p 0042; EN: children follow parents); incrementing a counter associated with each node in the first tree as the node is created (**Copperman**, p 0042; EN: each node has a memory address; each memory address is numbered and counted); creating a second tree with a root node associated with page P_2 , and with successive child nodes associated with pages P_2 to P_{X+1} (**Copperman**, p 0042; EN: children follow parents); incrementing a counter associated with each node in the second tree as the node is created (**Copperman**, p 0042; EN: each node has a memory address; each memory address is numbered and counted); creating additional trees rooted at each page P_{N-X+2} to P_N for all subpaths in CS data starting with pages P_{N-X+2} to P_N (**Copperman**, p 0042); storing the subpaths that start at each page and ending at P_N in the respective tree so that new trees are created only when the trees or nodes have not already been created (**Copperman**, p 0042; EN: follows from "to span the body of content"); and running through all paths in each tree to extract and output only paths that satisfy input depth and input width criteria (**Copperman**, p 0042; EN: which would include all paths since the stated criteria is indefinite).

Art Unit: 2121

Claim 29

Copperman anticipates processing another clickstream according to the method described in claim 28 (**Copperman**, ps 0037, 0038, 0041; EN: recursing takes place through a tree (path) using content gleaned from the dialog session which will satisfy an input requirement).

Claim 30

Copperman anticipates the tree for a page P_i is only created if P_i is part of an input starting page criterion (**Copperman**, ps 0037; EN: it is axiomatic that to start anything, one needs a point, place to start).

Response to Arguments

6. The objection to claim 6 under 37 CFR 1.75(c) is withdrawn.
7. The rejection to claims 1-12, 14-22 and 26-30 under 35 USC 101 is withdrawn.
8. The rejection to claims 1-12, 14-22 and 26-30 under USC 112, first and second paragraphs, is withdrawn.
9. Applicant's arguments filed on July 21, 2004 related to the rejection under 35 USC of Claims 1-31 have been fully considered but are not persuasive.

In reference to Applicant's argument:

Claims 1-31 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Copperman et al, U.S. Pub. 2003/0115191 ("Copperman publication"). Applicants respectfully disagree with the Examiner's reading of the present application.

The Copperman publication discloses a system for organizing documents of a web sites to steer or guide users to particular documents within the web site. Contrary to the Copperman publication, the present application does not attempt to steer or guide a user to a needed content or page. Instead, the present application teaches a method and system for analyzing a clickpath of a user when visiting a series of web pages of interest and producing a clickpath funnel analysis in response to a particular width or depth criterion. The present application teaches storing clickpaths of a user as the user visits documents of a

Art Unit: 2121

web site (e.g., no guidance is given). This is entirely different from the teachings of the Copperman publication, which guides users to desired content.

Examiner's response:

Para 12 applies. Details of the First Office Action apply. The claims and only the claims form the metes and bounds of the invention. Applicant is encouraged in all future actions to respond to all of the actions taken by the Examiner.

Examination Considerations

10. The claims and only the claims form the metes and bounds of the invention.

"Office personnel are to give the claims their broadest reasonable interpretation in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. *In re Prater*, 415 F.2d, 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969)" (MPEP p 2100-8, c 2, I 45-48; p 2100-9, c 1, I 1-4). The Examiner has full latitude to interpret each claim in the broadest reasonable sense.

Examiner will reference prior art using terminology familiar to one of ordinary skill in the art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

11. Examiner's Notes are provided to assist the applicant to better understand the nature of the prior art, application of such prior art and, as appropriate, to further indicate other prior art that maybe applied in other office actions. Such comments are entirely consistent with the intent and spirit of compact prosecution. However, and

Art Unit: 2121

unless otherwise stated, the Examiner's Notes are not prior art but a link to prior art that one of ordinary skill in the art would find inherently appropriate.

12. Examiner's Opinion: Paras 10. and 11. apply. The claims and only the claims form the metes and bounds of the invention.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

14. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

15. Claims 1-31 are rejected.

Art Unit: 2121

Correspondence Information

Any inquiry concerning this information or related to the subject disclosure should be directed to the Examiner, Joseph P. Hirl, whose telephone number is (703) 305-1668. The Examiner can be reached on Monday – Thursday from 6:00 a.m. to 4:30 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Anthony Knight can be reached at (703) 308-3179.

Any response to this office action should be mailed to:

Commissioner of Patents and Trademarks,

Washington, D. C. 20231;

or faxed to:

(703) 746-7239 (for formal communications intended for entry);

or faxed to:

(703) 746-7290 (for informal or draft communications with notation of "Proposed" or "Draft" for the desk of the Examiner).

Note: During the last two weeks of October 2004, Art Unit 2121 will move to Carlyle, Randolph Building, 5th floor and my phone and fax number will change to: 571-272-3685 and 571-273-3685, respectively. Similarly, Anthony Knight's phone and fax numbers will change to: 571-272-3687 and 571-273-3687.


Joseph P. Hirl

October 5, 2004


Anthony Knight
Supervisory Patent Examiner
Group 3600